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EXAMINER	
BRANT, DMITRY	

ART UNIT	PAPER NUMBER
2655	9

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/839,309	ITO ET AL.	
	Examiner	Art Unit	
	Dmitry Brant	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 5/20/04.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-15 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-15 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. In response to the Office Action mailed 12/24/03, Applicant has submitted an Amendment, filed 5/20/04, amending Specification to correct informalities and amending claim 8 to overcome Examiner's 35 U.S.C. 112 rejection.

While this lead to withdrawal of the objections to Specification and the 35 U.S.C. 112, second paragraph, claim rejections, the 35 U.S.C 102 (e) claim rejections remain, for the reasons given below in Response to Arguments.

Response to Arguments

2. Applicant's arguments have been fully considered but they are not persuasive.

Specifically, Applicant suggests that Ladd et al. fail to teach "at least selecting a rule from among a plurality of rules each specifying respective voice output contents and voice input candidates, and analyzing an obtained document based on the rule selected," as recited in claim 1 (Page 20).

In the previous Office Action, Examiner listed several reasons for why Ladd et al.'s invention "read on" the language of claim 1. For example, Ladd et al. teach parsing the document based on the rules of the markup language (Col. 12, lines 18-20). As shown in Figure 6, the markup language document (XML) contains sections (inside <DIALOG> tags) that are the rules for interpreting the body of the document. It is inherent that each XML document will have at least one or more DIALOG sections,

each covering a specific type of the machine-user dialog. This part of the XML document structure "reads on" the "plurality of rules" language in claim 1.

Regarding the "rules each specifying respective voice output contents and voice input candidates," Figure 6 shows the <PROMPT> tags that provide "output contents" ("What meal would you like to hear the specials for?") and the <OPTION> tags which specify "input candidates" (Lunch, Breakfast, Dinner). Note that <INPUT TYPE = OPTIONLIST> elements may contain direct instructions to "fetch" additional list components via SQL calls (Col. 41, lines 45-50). Because of these commands, the software will inherently fetch the additional voice input or output contents/candidates (See the rest of the example code on Cols. 41-42). Finally, the interpreter unit parses each document based on the structure of the DIALOG sections (Col. 13, lines 52-59).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-7, 9-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Ladd et al. (6,269,336 filed 10/2/1998). The table below summarizes the limitations of these claims and teachings in Ladd et al. that meet these limitations.

Claim #	Limitations	Ladd et al.
1	A document processing apparatus comprising:	
	document obtaining means for obtaining a document written in a predetermined markup language from a designated source from which the document is to be obtained	The network access apparatus of the system allows the user to access (i.e., view and/or hear) the information retrieved from the information source. (**Col. 3, lines 40-42**). The information can be stored in a database of the information source and can include text content, markup language document or pages (**Col 11, lines 42-45**)
	rule selecting means for selecting a rule defining voice input/output contents from a plurality of predetermined rules	The parser unit receives the information from the network fetcher unit and parses the information according to the syntax rules of the markup language. (**Column 12, lines 18-20**) The markup language can include elements that describe the structure of a document or page, provide pronunciation of words and phrases, and place markers in the text to control interactive voice services. The markup language also provides elements that control phrasing, emphasis, pitch, speaking rate, and other characteristics. (**Column 16, 12-18** and **FIG. 6**) As seen from **FIG. 6**, the <DIALOGUE> section contains both input candidates and output contents, which may also include instructions to fetch

		additional elements via SQL calls. (Col. 41, lines 45-50)
	document analyzing means for analyzing a designated range of the document obtained by said document obtaining means based on the rule selected by said rule selecting means to fetch voice output contents, voice input candidates, and designation information for designating a next processing object corresponding to each voice input candidate	The interpreter unit determines the next state or step based upon the structure of the dialog and the inputs from the user. When the interpreter unit transitions to a new dialog or page, the address of the new dialog or page is then sent to the network fetcher. (**Column 13, lines 55-59**)
	voice outputting means for voice-outputting the voice output contents fetched by said document analyzing means	The TTS unit of the VRU server receives textual data or information... The TTS unit processes the textual data and converts the data to voice data or information. (**Column 9, lines 3-10**)
	voice recognizing means for voice-recognizing the voice input by the user	The ASR unit of the VRU server provides speaker independent automatic speech recognition of speech inputs or communications from the user. (**Column 9, lines 27-30**)
	controlling means for checking the result of recognition by said voice recognizing means against the input candidates fetched by said document analyzing means to control obtainment of a new document by said document obtaining means or next analysis by said document analyzing means based on designation information corresponding to the input candidate matching the recognition result.	The interpreter unit can transition from state to state (i.e., step to step) within a tree structure (i.e., a dialog) of a markup language document or can transition to a new tree structure within the same dialog or another dialog. The interpreter unit determines the next state or step based upon the structure of the dialog and the inputs from the user. When the interpreter

		unit transitions to a new dialog or page, the address of the new dialog or page is then sent to the network fetcher. (**Column 13, lines 52-59**)
2	The document processing apparatus according to claim 1, wherein said rule selecting means selects a rule based on rule identification information described in the document obtained by said document obtaining means.	The voice browser determines whether the grammar for the user input is found in a predetermined or pre-existing grammar stored in a database or contained in the markup language. (**Column 14, lines 21-24**) See description of markup language at **Column 13, lines 52-59**.
3	The document processing apparatus according to claim 2, wherein said rule identification information is a predetermined attribute value of a predetermined tag.	markup language document includes tags (**Column 16, line 29-31**)
4	The document processing apparatus according to claim 2, wherein said rule selecting means selects a predetermined rule if the rule identification information is not described in the obtained document.	If a pre-existing grammar is not found at block, the voice browser dynamically generates the grammar for the user input. The voice browser looks up the pronunciations for the user in a dictionary. (**Column 14, lines 29-33**)
5	The document processing apparatus according to claim 1, wherein said document analyzing means fetches as said designation information a source from which a next document is obtained.	When the interpreter unit transitions to a new dialog or page, the address of the new dialog or page is then sent to the network fetcher. (**Column 13, lines 55-59**) The network fetcher unit retrieves information, including markup language documents, audio samples and grammars from the information sources. (**Column 12, lines 10-14**)
6	The document processing apparatus according to claim 1, wherein said document analyzing means fetches an analyzed range of a next document as	The network fetcher unit retrieves information, including markup language documents (**Column 12, lines 10-14**).

	said designation information.	Since network fetcher can retrieve full documents, it can inherently retrieve multiple documents specified in the analyzed range of a next document.
7	The document processing apparatus according to claim 1, wherein said rule selecting means selects a rule based on instructions from a user.	The communication node can also allow the user to select a particular speech recognition model. (**Column 6, lines 25-36**) or choose models based on <PROFILE> tag information (**Col. 24, lines 12-65**)
9	The document processing apparatus according to claim 1, wherein said plurality of rules includes a rule which defines a predetermined attribute value of a predetermined tag as voice output contents, and contents surrounded by predetermined second tags as input candidates, in said document.	The PROMPT element of the markup language is used to define content (i.e., text or an audio file) that is to be presented to the user. (**Column 18, line 32-36**). The INPUT element of the markup language is used to define a valid user input within each STEP element. (**Column 18, line 56-58**)
10	The document processing apparatus according to claim 9, wherein in said rule, if said recognition result matches an input candidate, contents ranging from the contents surrounded by said second predetermined tags which correspond to the input candidate up to a third predetermined tag are defined as next voice output contents, and an anchor in the voice output contents is defined as a next input candidate.	See example (**Column 16, line 63 – Column 17, line 15**). The page consists of one rule (DIALOG) encompassing PROMPT elements that define voice output contents and INPUT elements that define input candidates. The nature of the markup language is such that these elements can be arranged in a variety of configurations that limit claim 11.
11	The document processing apparatus according to claim 1, wherein said plurality of rules includes a rule which defines contents ranging from the head of said document to a predetermined tag as voice output contents, and an anchor in the voice output contents as an input candidate.	See example (**Column 16, line 63 – Column 17, line 15**). The page consists of one rule (DIALOG) encompassing PROMPT elements that define voice output contents and INPUT elements that define input candidates. The nature of the markup language is such that these elements can

		be arranged in a variety of configurations that limit claim 11.
12	The document processing apparatus according to claim 1, wherein said voice input and voice output are performed through a telephone line.	The telecommunication network is preferably connected to the communication node via a high-speed data link, such as, a T1 telephone line. **(Column 5, lines 39-42)**
13	A document processing method comprising: a document obtaining step of obtaining a document written in a predetermined markup language from a designated source from which the document is to be obtained	 The network access apparatus of the system allows the user to access (i.e., view and/or hear) the information retrieved from the information source. **(Col. 3, lines 40-42)**. The information can be stored in a database of the information source and can include text content, markup language document or pages **(Col 11, lines 42-45)**
	a rule selecting step of selecting a rule defining voice input/output contents from a plurality of predetermined rules	The parser unit receives the information from the network fetcher unit and parses the information according to the syntax rules of the markup language. **(Column 12, lines 18-20)** See definition of markup language at **Column 16, 12-18.**
	a document analyzing step of analyzing a designated range of the document obtained in said document obtaining step based on the rule selected in said rule selecting step to fetch voice output contents, voice input candidates, and designation information for designating a next processing object corresponding to each voice input candidate	The interpreter unit carries out a dialog with the user based upon the tree structure representing a markup language document. **(Column 13, lines 45-47)** When the interpreter unit transitions to a new dialog or page, the address of the new dialog or page is then sent to the network fetcher. **(Column 13, lines 55-59)**
	a voice outputting step of voice-outputting the	The TTS unit of the VRU server receives

	voice output contents fetched in said document analyzing step	textual data or information... The TTS unit processes the textual data and converts the data to voice data or information. **(Column 9, lines 3-10)**
	a voice recognizing step of voice-recognizing the voice input from the user	The ASR unit of the VRU server provides speaker independent automatic speech recognition of speech inputs or communications from the user. **(Column 9, lines 27-30)**
	and a controlling step of checking the result of recognition by said voice recognizing step against the input candidates fetched in said document analyzing step to control obtainment of a new document by said document obtaining step or next analysis by said document analyzing step based on designation information corresponding to the input candidate matching the recognition result.	The interpreter unit can transition from state to state (i.e., step to step) within a tree structure (i.e., a dialog) of a markup language document or can transition to a new tree structure within the same dialog or another dialog. The interpreter unit determines the next state or step based upon the structure of the dialog and the inputs from the user. When the interpreter unit transitions to a new dialog or page, the address of the new dialog or page is then sent to the network fetcher. **(Column 13, lines 52-59)**.
14	A computer-executable program for controlling a computer to perform document processing, said program comprising codes for causing the computer to perform: <Text same as in claim 13>	communication node can be carried out in the form of hardware components and circuit designs, software or computer programming, or a combination thereof. **(Column 7, lines 14-17)** The rest of this claim is rejected for the same reasons as claim 13.
15	A computer-readable storage medium for storing the program according to claim	communication node can be carried out in the form of hardware components and circuit designs, software or computer

		programming, or a combination thereof. **(Column 7, lines 14-17)**

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ladd et al.

Ladd et al. do not teach assigning priorities to rules and choosing rules based on their respective priorities.

However, the examiner takes the official notice that it is well-known in the art of speech recognition to assign priorities to speech models (which are part of the rules specified by the XML document in Ladd et al.'s invention) in speech recognition systems in order to make the selection process of required speech models more flexible to the user's requirements.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ladd et al. to assign priorities and choose rules based on assigned priorities because this would enable the system to be more flexible to the user's requirements and choose a rule that would best fit the situation.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Brant whose telephone number is (703) 305-8954. The examiner can normally be reached on Mon. - Fri. (8:30am - 5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Ivars Smits can be reached on (703) 306-3011. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Tech Center 2600 receptionist whose telephone number is (703) 305- 4700.

DB
7/14/04

W. R. YOUNG
PRIMARY EXAMINER